

## **REMARKS/ARGUMENTS**

Claims 1-7, 9-17, 23-34 and 36-47 are now pending. Claim 15 has been amended to refer to the spray nozzle as a component of a device for mixing and spraying the first and second reactant materials. Claim 28 has been amended to delete the phrase “commercially available” and to clarify that the aramid fiber is aramid fiber pulp. Support for this amendment is found in Example 1, page 14, line 8, and original claims 6 and 17. Claim 34 has been amended by having the term “sprayable” refer to the polyol and to the polyisocyanate rather than to the aramid fibers per se. Claims 37 and 41 have been amended to clarify that the flexible liner is substantially leak-proof. Support for this amendment is found in the specification at page 6, lines 17 - 19. Independent claim 47 has been added and is a copy of amended claim 15 except that it incorporates the further limitation that the spray nozzle has a tip with an inner tip diameter of 0.21 to 0.45 thousands of an inch. Support for this amendment is found on page 5, lines 21 - 22.

### **Rejections under 35 USC § 112, second paragraph**

The rejection of claim 28 under 35 USC § 112, second paragraph is believed to be obviated by the amendment to that claim deleting the phrase “commercially available.” In addition, the claim is made clearer by referring to the aramid fiber as aramid fiber pulp.

### **Rejections under 35 USC § 112, first paragraph**

The rejection of claim 34 under 35 USC § 112, first paragraph is believed to be obviated by the amendment to that claim by which the term “sprayable” now refers to the polyol and to the polyisocyanate rather than to the aramid fibers per se.

The first reason for the rejection of claim 15 - 17 under 35 USC § 112, first paragraph, for lack of enablement in that applicants have failed to provide a means within the nozzle for carrying out mixing is believed to be obviated by the amendment to that claim. Claim 15 now refers to the spray nozzle as a component of a device for mixing and spraying the first and second reactant materials.

The second reason for the rejection of claim 15 - 17 under 35 USC § 112, first paragraph, for lack of enablement in that applicants have failed to limit those claims to a nozzle having a tip diameter of 0.21 to 0.45 thousandths of an inch, is respectfully traversed. Although the Examiner argues that a tip diameter of about 0.21-0.45 thousandths of an inch is a characteristic of the nozzle of the invention, this is not necessarily the case. The specification identifies a nozzle having a tip diameter of about 0.21-0.45 thousandths of an inch as “another embodiment of the present invention” (page 5, line 20), not as the sole nozzle of the invention. Further, in describing nozzles, the specification refers to nozzle parts in general terms without reference to specific tip diameters (page 13, lines 2-4).

Moreover, the specification states, at page 20, lines 1 – 4:

“Although the foregoing invention has been described in some detail by way of illustration and example for purposes of clarity and understanding, it will be obvious that various modifications

and changes which are within the knowledge of those skilled in the art are considered to fall within the scope of the appended claims.”

In addition, please note that none of the original claims, which are part of the specification [37 C.F.R. § 1.75 and 1.77], refer to the diameter of the tip.

Therefore, the specification is clearly directed to nozzles generally, not only to nozzles with tip diameters of about 0.21-0.45 thousands of an inch. Accordingly, claims 15 -17 are enabled.

Applicant has added claim 47, which is a copy of amended claim 15 except that it incorporates the further limitation that the spray nozzle has a tip with an inner tip diameter of 0.21 to 0.45 thousands of an inch.

### **Rejections under 35 USC § 103**

The rejection of claims 1-3, 5, 7, 10-12 and 14 as obvious over Kotschwar ('575) is respectfully traversed. “To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP § 2143.04. In the present case, Kotschwar fails to achieve this standard.

The claims call for heating of a polyol component and an isocyanate component, adding fibrous material to one or both components, then reacting the components to create a polymer. Although Kotschwar teaches in a less preferred method that a fiber can be added to a polyol before combining with an isocyanate, Kotschwar says nothing about heating the polyol before adding the fiber. Indeed, the only place Kotschwar mentions heating in connection with fibers is in Example 1. However, in Example 1, fiber is dispensed into the spray pattern of the already formed polyurethane. Therefore, Kotschwar does not teach adding fibrous material to one or both components before forming polyurethane.

According to the Office Action, the point at which the components would be heated prior to reaction is an obvious process or design choice. However, the Office Action does not point to any evidence to support its opinion. The Federal Circuit has repeatedly emphasized that an opinion predicated on basic knowledge or common sense must be based on evidence in the record. An assessment that is not based on any evidence in the record lacks substantial evidence support. *In re Zurko*, 258 F.3d 1379, 59 USPQ2d 1693, (Fed. Cir. 2001); MPEP 2144.03(A). In the absence of any evidence to support its opinion, the Office Action has failed to establish a *prima facie* of obviousness. Accordingly, claims 1-3, 5, 7, 10-12 and 14 are not obvious.

The rejection of claims 4, 6, 9, 13, 23-33 as obvious over Kotschwar and further in view of Cotts et al.('569), Brown ('969 )and Domeier ('579) is respectfully traversed. The claims call for heating of a polyol component and an isocyanate component, adding fibrous material to one or both components, then reacting the components to create a polymer. The rejection is based on the contention that the point at which the components would be heated prior to reaction is an obvious process or design choice. However, as pointed out above, the Office Action fails to provide any evidence to support this contention. Accordingly, no *prima facie* case exists and claims 4, 6, 9, 13, 23-33 are not obvious.

The rejection of claims 37-46 as obvious over Kotschwar, in view of Cotts et al., Brown, and Domeier, and further in view of Willibey et al ('247) and White ('245) is respectfully traversed.

As amended, claims 37-46 are directed to substantially leak-proof flexible liners comprising a geotextile fabric and a polyurethane composition sprayed over the fabric. The Office Action admits that Kotschwar, Cotts et al., Brown, and Domeier are silent as to applications involving geotextile fabrics. Similarly, White does not describe or even mention applying a polyurethane to a geotextile fabric.

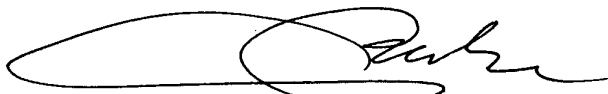
As for the Willibey et al. patent, this reference does not teach or suggest leak-proof liners comprising a geotextile fabric and polyurethane.

The Willibey et al. patent is directed to geotextile grids comprising spaced yarns and a plastic coating covering the yarns (Fig. 1.) The coating is applied to the yarns such that large spaces (or "interstices") are provided in the grid. The large interstices allow soil and water to penetrate and pass through the grid (Abstract; col. 4, ln. 1-2). As a result, the grid is not substantially leak-proof. Because Willibey et al. do not teach or suggest a substantially leak-proof liner, all claim limitations are not taught. Accordingly, claims 37-46 are not obvious.

In view of the foregoing amendments and remarks, Applicants submit that the present application is in condition for allowance. A Notice of Allowance is therefore respectfully requested.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert Berliner", written over a horizontal line.

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